

## SECTION I—CLAIMS

### **Amendment to the Claims:**

This listing of the claims will replace all prior versions and listings of claims in the application. Claims 28-34, 36-43, 45-52, and 54 are amended herein. Claims 1-27, 35, 44, and 53 are or remain canceled herein without prejudice. New claims 55-57 are presented herein. Claims 28-34, 36-43, 45-52, and 54-57 remain pending in the application.

### **Listing of Claims:**

1-27. (Canceled).

28. (Currently amended) A method for testing a multi-tier application having a presentation layer, a business layer, and a third layer for storing information associated with the multi-tier application, wherein the method comprises: ~~in a test control program comprising:~~ sending ~~a plurality of predetermined~~ known test inputs to a first instance of ~~an application~~ operating at a business layer within a the multi-tier application; architecture; receiving ~~a plurality of output[[s]]~~ from the first instance of the multi-tier application responsive to the ~~predetermined~~ known test inputs; and converting the output into a geographic-neutral and linguistic-neutral format; establishing predicted output for the multi-tier application based on the converted output; and generating a test script for the multi-tier application by associating the predicted each output with the known test inputs, wherein the test script is to send the known test inputs to the business layer of ~~with one of the predetermined inputs, each output establishing a proper response from the application to compare with results from~~ a second instance of the

multi-tier application, bypassing the presentation layer, and compare results from the second instance of the multi-tier application with the predicted output.

29. (Currently amended) The method of claim 28, further comprising:

converting the known test inputs into the geographic-neutral and linguistic-neutral format; and storing the converted known test inputs and the converted output plurality of predetermined inputs and associated outputs in an application independent format.

30. (Currently amended) The method of claim 29, wherein storing the converted known test inputs and the converted output plurality of predetermined inputs and associated outputs in the application independent format comprises:

storing the converted known test inputs and the converted output in the translating the plurality of predetermined inputs and associated outputs into a geographic-neutral and linguistic-neutral format based on a predefined Extensible Markup Language (“XML”) schema.

31. (Currently amended) The method of claim 30, further comprising:

sending the known test providing the plurality of predetermined inputs in the geographic-neutral and linguistic-neutral format to the [[a]] presentation layer of the second instance of the multi-tier associated with the application, the presentation layer preparing the known test predetermined inputs according to predefined presentation logic and generating presentation layer output responsive to the known test plurality of predetermined inputs provided; and

comparing the presentation layer output with the predicted output plurality of outputs from the first instance of the multi-tier application.

32. (Currently amended) The method of claim 28, further comprising:

storing the known test plurality of predetermined inputs and the associated predicted output[[s]]

within a test library, wherein the test library is accessible via the [[a]] test script, the test script used to test the second and subsequent instances of the multi-tier application.

33. (Currently amended) The method of claim 28, wherein the second instance of the multi-tier application comprises an application under test, wherein the application under test is used to generate the test results for comparison with the ~~plurality of predicted~~ output[[s]] from the first instance of the multi-tier application.

34. (Currently amended) The method of claim 28, ~~further comprising:~~ wherein the test script is to send[[ing]] the known test plurality of predetermined inputs to the business layer of the second instance of the multi-tier application, bypassing the presentation layer, comprises: sending the known test inputs via a Hyper Text Transport Protocol (“HTTP”) request, Uniform Resource Locator (“URL”), wherein the HTTP request is received at the business layer of the second instance of the multi-tier application without engaging logic at the presentation layer of the second instance of the multi-tier application.

~~wherein sending the plurality of predetermined inputs via the URL comprises sending the plurality of predetermined inputs to the business layer of the application, bypassing a presentation layer associated with the application.~~

35. (Canceled).

36. (Currently amended) The method of claim 34, further comprising:  
specifying via the ~~URL~~ HTTP request, a network location accessible to the second instance of the multi-tier application to store the test results generated in response to the known test plurality of predetermined inputs sent to the second instance of the multi-tier application.

37. (Currently amended) A test control system ~~comprising:~~ for testing a multi-tier application having a presentation layer, a business layer, and a third layer for storing information

associated with the multi-tier application, wherein the system comprises:

~~means for sending a plurality of predetermined inputs to a first instance of an application~~

~~operating at a business layer within a multi-tier application architecture;~~

~~means for receiving a plurality of outputs from the first instance of the application responsive to~~

~~the predetermined inputs; and~~

~~means for associating each output with one of the predetermined inputs, each output establishing~~

~~a proper response from the application to compare with results from a second instance of~~

~~the application.~~

means for sending known test inputs to a first instance of the multi-tier application;

means for receiving output from the first instance of the multi-tier application responsive to the

known test inputs;

means for converting the output into a geographic-neutral and linguistic-neutral format;

means for establishing predicted output for the multi-tier application based on the converted

output; and

means for generating a test script for the multi-tier application by associating the predicted

output with the known test inputs, wherein the test script comprises means for sending

the known test inputs to the business layer of a second instance of the multi-tier

application, bypassing the presentation layer, and comparing results from the second

instance of the multi-tier application with the predicted output.

38. (Currently amended) The test control system of claim 37, further comprising:

means for converting the known test inputs into the geographic-neutral and linguistic-neutral

format; and

means for storing the converted known test inputs and the converted output ~~plurality of~~

~~predetermined inputs and associated outputs~~ in an application independent format.

39. (Currently amended) The test control system of claim 38, wherein storing the converted known test inputs and the converted output ~~plurality of predetermined inputs and associated outputs~~ in the application independent format comprises:

means for storing the converted known test inputs and the converted output in the ~~translating the plurality of predetermined inputs and associated outputs into a~~ geographic-neutral and linguistic-neutral format based on a predefined Extensible Markup Language (“XML”) schema.

40. (Currently amended) The test control system of claim 39, further comprising:

means for sending the known test ~~providing the plurality of predetermined~~ inputs in the geographic-neutral and linguistic-neutral format to the [[a]] presentation layer of the second instance of the multi-tier ~~associated with the~~ application, the presentation layer preparing the known test ~~predetermined~~ inputs according to predefined presentation logic and generating presentation layer output responsive to the known test ~~plurality of predetermined~~ inputs provided; and

means for comparing the presentation layer output with the predicted output ~~plurality of outputs~~ from the first instance of the multi-tier application.

41. (Currently amended) The test control system of claim 37, further comprising:

means for storing the known test ~~plurality of predetermined~~ inputs and the associated predicted output[[s]] within a test library, wherein the test library is accessible via the [[a]] test script, the test script used to test the second and subsequent instances of the multi-tier application.

42. (Currently amended) The test control system of claim 37, wherein the second instance of the

multi-tier application comprises an application under test, wherein the application under test is used to generate the test results for comparison with the ~~plurality of predicted~~ output[[s]] from the first instance of the multi-tier application.

43. (Currently amended) The test control system of claim 37, ~~further comprising:~~  
~~means for sending the plurality of predetermined inputs to the second instance of the application~~  
~~via a Uniform Resource Locator (“URL”), wherein sending the plurality of~~  
~~predetermined inputs via the URL comprises means for sending the plurality of~~  
~~predetermined inputs to the business layer of the application, bypassing a presentation~~  
~~layer associated with the application. wherein sending the known test inputs to the~~  
business layer of the second instance of the multi-tier application, bypassing the  
presentation layer, comprises:  
means for sending the known test inputs via a Hyper Text Transport Protocol (“HTTP”) request,  
wherein the HTTP request is received at the business layer of the second instance of the  
multi-tier application without engaging logic at the presentation layer of the second  
instance of the multi-tier application.

44. (Canceled).

45. (Currently amended) The test control system of claim 43, further comprising:  
means for specifying via the ~~URL~~ HTTP request, a network location accessible to the second  
instance of the multi-tier application to store the test results generated in response to the  
known test ~~plurality of predetermined~~ inputs sent to the second instance of the multi-tier  
application.

46. (Currently amended) An article of manufacture ~~A computing device~~ having test control  
instructions stored thereon for testing a multi-tier application comprising a presentation

layer, a business layer, and a third layer for storing information associated with the multi-tier application, wherein the test control instructions, that, when executed by a processor, cause the processor to perform operations comprising:

~~sending a plurality of predetermined inputs to a first instance of an application operating at a business layer within a multi-tier application architecture;~~

~~receiving a plurality of outputs from the first instance of the application responsive to the predetermined inputs; and~~

~~associating each output with one of the predetermined inputs, each output establishing a proper response from the application to compare with results from a second instance of the application.~~

sending known test inputs to a first instance of the multi-tier application;

receiving output from the first instance of the multi-tier application responsive to the known test inputs;

converting the output into a geographic-neutral and linguistic-neutral format;

establishing predicted output for the multi-tier application based on the converted output; and

generating a test script for the multi-tier application by associating the predicted output with the known test inputs, wherein the test script is to send the known test inputs to the business layer of a second instance of the multi-tier application, bypassing the presentation layer, and compare results from the second instance of the multi-tier application with the predicted output.

47. (Currently amended) The article of manufacture ~~computing device~~ of claim 46, wherein the test control instructions cause the processor to perform further operations comprising:

converting the known test inputs into the geographic-neutral and linguistic-neutral format; and

storing the converted known test inputs and the converted output plurality of predetermined inputs and associated outputs in an application independent format.

48. (Currently amended) The article of manufacture computing device of claim 47, wherein storing the converted known test inputs and the converted output plurality of predetermined inputs and associated outputs in the application independent format comprises:

storing the converted known test inputs and the converted output in the translating the plurality of predetermined inputs and associated outputs into a geographic-neutral and linguistic-neutral format based on a predefined Extensible Markup Language (“XML”) schema.

49. (Currently amended) The article of manufacture computing device of claim 48, wherein the test control instructions cause the processor to perform further operations comprising: sending the known test providing the plurality of predetermined inputs in the geographic-neutral and linguistic-neutral format to the [[a]] presentation layer of the second instance of the multi-tier associated with the application, the presentation layer preparing the known test predetermined inputs according to predefined presentation logic and generating presentation layer output responsive to the known test plurality of predetermined inputs provided; and

comparing the presentation layer output with the predicted output plurality of outputs from the first instance of the multi-tier application.

50. (Currently amended) The article of manufacture computing device of claim 46, wherein the test control instructions cause the processor to perform further operations comprising: storing the known test plurality of predetermined inputs and the associated predicted output[[s]] within a test library, wherein the test library is accessible via the [[a]] test script, the test

script used to test the second and subsequent instances of the multi-tier application.

51. (Currently amended) The article of manufacture computing device of claim 46, wherein the second instance of the multi-tier application comprises an application under test, wherein the application under test is used to generate the test results for comparison with the plurality of predicted output[[s]] from the first instance of the multi-tier application.

52. (Currently amended) The article of manufacture computing device of claim 46, ~~wherein the~~ test control instructions cause the processor to perform further operations comprising: wherein the test script is to send[[ing]] the known test plurality of predetermined inputs to the business layer of the second instance of the multi-tier application, bypassing the presentation layer, comprises:

sending the known test inputs via a Hyper Text Transport Protocol (“HTTP”) request, Uniform Resource Locator (“URL”), wherein the HTTP request is received at the business layer of the second instance of the multi-tier application without engaging logic at the presentation layer of the second instance of the multi-tier application.

~~wherein sending the plurality of predetermined inputs via the URL comprises sending the plurality of predetermined inputs to the business layer of the application, bypassing a presentation layer associated with the application.~~

53. (Canceled).

54. (Currently amended) The article of manufacture computing device of claim 52, wherein the test control instructions cause the processor to perform further operations comprising: specifying via the ~~URL~~ HTTP request, a network location accessible to the second instance of the multi-tier application to store the test results generated in response to the known test plurality of predetermined inputs sent to the second instance of the multi-tier application.

55. (New). The method of claim 28, wherein the test script is to compare the results from the second instance of the multi-tier application with the predicted output comprises:  
converting the results from the second instance of the multi-tier application into the geographic-neutral and linguistic-neutral format; and  
comparing the converted results with the predicted output.
56. (New) The method of claim 28, wherein the presentation layer generates code for a web browser connected with the first instance of the multi-tier application; and wherein the web browser provides the known test inputs to the first instance of the multi-tier application via a Uniform Resource Locator (“URL”).
57. (New) The method of claim 56, wherein the presentation layer of the first instance of the multi-tier application receives the known test inputs and sends the known test inputs to the business layer of the first instance of the multi-tier application.